ABSTRACT OF THE DISCLOSURE

A method for operating a gas generation device, for example, for a fuel cell system, having at least two gas generation units through which a starting-material stream flows in series. The two gas generating units have a first and second rated power P_{rated_1}, P_{rated_2} and a first and second predetermined operating temperature T_{rated_1}, T_{rated_2}, and the first gas generation unit has a lower thermal mass than the second gas generation unit. During a starting phase only the first gas generation unit is operated, with a power $P_{start\_1} > P_{rated\_1}$. After the end of the starting phase at least the second gas generation unit is operated.